

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. 07/23/2001 4851 09/857,311 Heinz Grosswang 21923 **EXAMINER** 7590 535 12/16/2003 THE FIRM OF KARL F ROSS SOUW, BERNARD E 5676 RIVERDALE AVENUE PAPER NUMBER ART UNIT PO BOX 900 RIVERDALE (BRONX), NY 10471-0900

2881
DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

- •		Application No.	Applicant(s)		
		09/857,311	GROSSWANG ET AL.		
	Office Action Summary	Examin r	Art Unit		
		Bernard E Souw	2881		
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status					
1)[🛛	1) Responsive to communication(s) filed on <u>06 October 2003</u> .				
2a)□	This action is FINAL . 2b)⊠ This	s action is non-final.			
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims					
4)🖂	I)⊠ Claim(s) <u>32-35,37-44 and 46-61</u> is/are pending in the application.				
4a) Of the above claim(s) is/are withdrawn from consideration.					
_	5) Claim(s) is/are allowed.				
	6) Claim(s) 32-35,37-44 and 46-61 is/are rejected.				
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers					
9) The specification is objected to by the Examiner.					
10)⊠ The drawing(s) filed on <u>06 October 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. §§ 119 and 120					
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).					
a)⊠ All b)□ Some * c)□ None of: 1.⊠ Certified copies of the priority documents have been received.					
2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage					
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.					
13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.					
a) The translation of the foreign language provisional application has been received.					
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.					
Attachment(s)					
1) Notic	e of References Cited (PTO-892)	4) Interview Summary			
	ee of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal P 6) Other:	atent Application (PTC	D-152)	

U.S. Patent and Trademark Office PTOI -326 (Rev 11-03)

Art Unit: 2881

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 04, 2003 has been entered.

Substitute Specification

2. A substitute specification has been filed 10/06/2003 along with the RCE, and has been entered.

Objections to the Specification

- 3. The disclosure, now replaced by the substitute specification, is objected to because of the following informalities:
- (a) It is not clear, where the "first" light source recited on page 19, line 11, is located, because it has not been described previously.
- (b) Page 18, line 20, the wording "second <u>range</u> 34" should better read "second <u>region</u> 34".
- (c) The glass pane label "32" recited on page 18, line 22, should correctly read "34".

Page 2

(d) On page 21, line 4, the wording "in addition" is misplaced; the sentence is more understandable if the phrase "in addition" is omitted.

Claims Amendments

4. Claim 32 has been amended, and claims 49-62 have been renumbered by Applicant, allegedly due to a "previous" omission of claim 48. However, no previous omission of claim 48 has been recorded in the previous examining process. Claim 48 suddenly disappears in the listing of claims in this RCE, as also claims 36 and 45, without any warning or explanation.

Consequently, pending in this Officer Action are claims 32-35, 37-44, and 46-61, wherein claims 49-62 have been renumbered to claims 48-61.

Previous § 112 Rejections Withdrawn

5. Claims 50, 55, 58, 59 and 61 (originally claims 51, 56, 59, 60 and 62) having been properly amended, the previous rejections under 35 U.S.C. § 112, 2nd paragraph, are now withdrawn.

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2881

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 32-34, 46, 47, 50, 53, 55, and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haslop et al. (USPAT #4,296,326) in view of Markantes et al. (USPAT #5,596,402), Baltes et al. (USPAT #4,537,504) and Stein (USPAT #5,436,716).

- 6.1 Regarding claim 32, Haslop et al. disclose in Fig.1 a device for *inspecting* security marks by visual verification of the angle-dependent scattering behavior of a security object, comprising:
- a holding device 2 (having a holding surface 12) which has a measuring window (not numbered) which can be brought into a predetermined relative position to a security object to be verified (by moving the drum 2) and an observation window (front end of light guide arrays 15 and 16) that can be viewed by an observer (from the rear end of light guide arrays 15 and 16), as recited in Col.3/II.53-68 and Col.4/II.1-9. Applicant's term "observation window" is here interpreted as being identical to the "viewing component" used by Haslop et al., since a "viewing component" inherently must have a "window" to view the illuminated area, as implicated in Col.4/II.18-22 (more accurate terminology is rendered obvious by Stein, see below).

Although Haslop's observation window is viewed through light guide arrays 15 and 16, and not directly by an observer's eye, Haslop's viewing method is more professional for being more definite and precise with respect to viewing direction and angle, thus suitable for quantitative measurements, while being also technically more advanced than the primitive direct viewing by an observer's eye that is only good for

Art Unit: 2881

qualitative observation, as in Applicant's invention. Therefore, in the event that such accuracy is not required and technical sophistication is not desired, the light guide transfer device may be simply discarded, as shown by Markantes et al. in Fig.2, showing a holding device 23 (having a holding surface 21) which is equipped with an observation window 36 that can be viewed optically and visually directly by an eye of an observer, as recited in Col.2/II.49-67.

It would have been obvious to one of ordinary skill in the art to modify Haslop's device by <u>substituting</u> a viewing window according to Markantes in place of Haslop's light guide "window" in the event that viewing accuracy is not required and technical sophistication is not desired, or, by <u>adding Markantes's window</u> to the existing light guide window of Haslop, in the event that a quick and convenient viewing without quantitative measurement is desired or preferred.

Haslop's device thus modified by Markantes's viewing window further comprises:

- a light feed 12 (carried by the holding device, not shown) and directing parallel light beams (through 12) at a predetermined angle α onto the measuring window (unlabeled on the drum's surface N), as recited by Haslop et al. in Col.4/6-15; and
- a light guide device 15 or 16 (carried by the holding device, not shown) and capturing a plurality of light beams outputted from a point of the measuring window at different angles (β_1 , β_2), as recited in Col.4/II.16-22.

However, Haslop's light feed is directed at a predetermined angle $\alpha=0^0$ onto the measuring window, and Haslop's light guides are not specifically arranged to capture a

Art Unit: 2881

plurality of light beams at different angles (β_1 , β_2). Further, Haslop et al. do not display the light outputs, neither parallel nor converging, in an observation window.

Baltes et al. disclose a similar inspection device as shown in <u>Fig.7</u>. The embodiment shown in <u>Fig.7</u> has light feed 7 that is directed to the object surface 2 at an angle (α) different than 0^0 , and Baltes' light guides 10 and 11 are directed under observation angle θ (or β_1) that is different --as measured to the surface normal-than the other observation angle θ ' (or β_2). As can be seen in <u>Fig.7</u>, Baltes's viewing direction 11 is on the same side as the light feed direction 7.

An alternative embodiment is shown in Baltes's Fig.12, in which the angle θ is different than the angle θ ' with respect to the light feed 7, and furthermore, can be varied by $\Delta\theta$, as recited in Col.8/II.34-42. In both cited embodiments the interferometric method of Baltes et al. may be simply discarded, if it is not needed. The only teaching required and adopted to modify Haslop's and Markantes's is the method of viewing through different (and variable) angles θ and θ '.

It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to modify Haslop's & Markantes's invention with the teaching of Baltes et al., i.e., to direct the illuminating light at an angle α different than 0^0 and observe the scattered light from a plurality of different angles β_1 , β_2 , or Baltes's $\underline{\theta}$, $\underline{\theta}'$, etc., since such a plurality of angles enhances the unique characteristics of the security feature(s) to be verified and validated.

However, Haslop et al. as modified by Markantes et al. and Baltes et al. do not display the light outputs in an observation window, neither parallel nor convergingly.

Art Unit: 2881

Stein invents an apparatus shown in Fig.1 and 2 for testing objects such as security documents. Stein's apparatus is equipped with an *observation window*, as recited in CoI.4/II.32-48 referring to viewing window B illustrated in detail in Fig.2. As shown in Fig.1 and 2, Stein displays the light outputs convergingly in the observation window onto a detector 5, or parallel to an observer at the site of the filter 7.

It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to further combine the invention of Haslop et al. as modified by Markantes et al. and Baltes et al. with Stein's teaching to replace Haslop's narrow viewing angle light guides 15 & 16, or Markantes's divergent angle viewing window 36, with Stein's optical device that leads into an observation window, since the latter displays the light outputs convergingly in the observation window onto a detector array, or a TV camera, to take an image of the object, as known in the art.

- Regarding claims 33 and 34, one of ordinary skill in the art would certainly know that the relative positions of the light feed and the light guide devices are completely irrelevant for the function of the apparatus, as implicated in *Baltes's Fig.7*, showing light guide 11 on the same side as the light feed 7 (with respect to normal to object surface 2), whereas light guide 10 is located on the opposite side of the light feed 12.
- 6.3 Claim 36 has been omitted without any explanation. In case claim 36 is reinstat6ed by Applicant, Haslop's light feed 12 has a light source 10, as recited in Col.4/II.6-15.

 β_1 , β_2 .

- Regarding claim 47, Baltes's light guides 10 & 11 have their ends open adjacent to one another in the observation window 25 represented by two detectors 26 & 27, as shown in Fig.7 and recited in Col.7/II.44-55. Although Baltes's light guides 10 & 11 consist of more components than Applicant's, and Baltes's purpose of using two detectors 26 & 27 is different than Applicant's, Baltes's apparatus as a whole and in general would do what the Applicant is trying to do with his claimed invention. Thereby the components, which are not needed, can be simply discarded.
- Regarding claim 50, the addition of a housing is a pure matter of design choice, which is not patentable because it only involves routine skill in the art. In any case, a housing is shown by Haslop's in Fig.7 and Fig.1 by numerals 9 and 9A, as recited in Col.4/line 7 and line 30, as well as by Markantes et al. in Fig.2, numeral 23, as recited in Col.2/II.48-67.

The recitation of the first and second regions is disclosed by Haslop et al. in Fig.1 by the additional apparatus 5 and/or 17, or in Fig.7 by the a duplicate of device 8 viewing a second region (not numbered), as recited in Col.6/II.9-17, whereas the step of shifting the position is inherent to the function of drum 2 as a holder and object

transporter. Again, the fact that Haslop's purpose of adding a second region (with or without a duplicate viewing device) is different than Applicant's, is irrelevant, as already described above.

The relative position of Haslop's second region (or measuring window) with respect to the first region (window) is also irrelevant, since both alternatives can be made available for viewing by simply shifting their positions using the drum 2.

The recitation of an IR camera targeting the second region is rendered obvious by Haslop's second viewing system shown in Fig.7, which may be equipped with an IR camera instead of PM1A and PM2A, just by virtue of routine skill in the art.

- 6.7 Regarding claim 53, Haslop's apparatus shown in Fig.7 has a second light source 10A.
- 6.8 Regarding claim 55, Haslop's 'second' surface viewed by device 5 (and/or18) comprising a third (and 4th) light source in Fig.1 an/or Fig.7 is permeable, as is self obvious in the figure, and also recited in Col.4/II.30-36, characterized by the word "transmission".
- 6.9 Regarding claim 58, addition of the third region with a housing having a fourth light source is shown by Haslop et al. in Fig.7, showing four illumination & viewing devices equipped with housings and light sources, whereas a fourth light source having

a significant proportion of its radiation in the ultraviolet light range is disclosed by Haslop et al. in Col.4/II.9-13.

- 6.10 The limitations of claims 59-60 are pure matters of design choice well known in the art, and are therefore unpatentable for involving only routine skills in the art. A cover hood is also provided in Markantes's device, as shown in Fig.2 by label 28, recited in Col.3/II.1-4.
- 6.11 Regarding claim 61, the recitation of a fourth region with an inductive sensor is also a routine matter of design choice, in the case that the device is designed to be used for inspecting security objects that is marked by magnetic tags, such as magnetic cards. Thus, claim 62 is unpatentable for containing limitations that are pure matters of design choice well known within skill in the art.
- 7. Claims 35, 37-41, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haslop et al. in view of Markantes et al., Baltes et al. and Stein, as applied to claims 32, 36, and 51 above, and further in view of Chapman et al. (USPAT #4,650,320).

Haslop et al. as modified by Markantes et al., Baltes et al. and Stein, recite all the limitations of claims 35, 37-41, 52 and 53, as already applied to the respective parent claims 32, 36, and 51 above, except for additional recitations that are rendered obvious by Chapman et al., to be addressed individually as follows:

Regarding claim 35, to use a viewing screen to observe the scattered light beams is as trivial as also inherent to Markantes's device as well as to Haslop's use of arrays of light guides 15 and 16 arranged in ribbon formations, the latter recited in Col.4/II.17-22. Furthermore, using a viewing screen to observe the scattered light beams is technologically more primitive than Haslop's method of using arrays of light guides 15 and 16, or a detector array as disclosed by Chapman et al. in numeral 7 of Fig. 1, recited in Col.3/II.57-62, or a CCD camera or a TV camera connected to a computer, as known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a viewing screen as a replacement of Chapman's photodiode array 7 in Fig.1, since a viewing screen is an outdated viewing means more simple and more primitive than a photodiode array. To use a technologically backward version of a well-known method used in the prior art cannot be claimed as an invention.

7.2 Regarding claims 37 and 38, the use of a white light source (claim 37) is disclosed by Chapman et al. in Col.3/II.67-68 and Col.4/II.1-4, and the use of a light emitting diode (LED) is disclosed by in Col.2/II.33-34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a white light source and/or a LED as taught by Chapman et al., in order to have a wide flexibility of viewing scattering characteristics of different wavelengths, including characteristic fluorescence of a security mark, thus improving

the security verification or validation method. Chapman's purpose of using an LED may be different than Applicant's, but LEDs are known as being commercially available also in white, thus representing Chapman's white light source.

7.3 Regarding claim 39, the use of ambient light as an alternative for white light is well known in the art. As matter of fact, ambient light, although white, can not be controlled regarding intensity, spectral distribution, and angular distribution, and hence, providing a less desirable method, while technologically more primitive, than using an artificial source of white light. By all means, the use of a technologically backward version of a well-known method in the prior art cannot be claimed as an invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ambient light as a replacement for white light source as taught by Chapman et al., in order to be able to operate the device without electricity.

- 7.4 The limitation of claim 40 is trivial, because a "light feed" is understood by those ordinarily skilled in the art as "being channeled through a light guide". Furthermore, the specification does not disclose any structural distinction between the two.
- 7.5 Regarding claim 41, Stein's light guide 10 shown in Fig.2 is a collecting lens and Stein's measuring window is located on the holding plane1 lying in a region of a focal plane of the collecting lens 10, as recited in Col. 4/II.20-31.

Art Unit: 2881

7.6 Regarding claims 51 and 52, Chapman's filter 5 in Fig.1 is a blocking filter for

the visible range, whereas an infrared-sensitive CCD camera, as a specific form of

photodiode array 7, is understood in the art as a black white camera. The use of a

monitor connected to the output of the IR camera of claim 53 is inherent to the use of a

CCD camera.

7.7 Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Haslop et al. in view of Markantes et al., Baltes et al. and Stein, as applied to claim

32 above, and further in view of Wang et al. (USPAT #5,767,980).

Haslop et al. as modified by Markantes et al., Baltes et al. and Stein show all the

limitations of claims 48 and 49, as applied to claim 32 above, except the recitation of a

few additional limitations all rendered obvious by Wang et al., to be individually

addressed in the following:

7.8 Regarding claim 48, the limitation of a receiver (=object holder) for the reference

is inherent in Wang's in the second apparatus. As a matter of fact, to add a second

apparatus to simultaneously view a reference paper is not only expensive, but also

technologically more backward than using modern computers to store the reference

data and recall it back on the screen anytime it is needed for comparison. A

technologically backward version of a well-known method used in the prior art cannot be

claimed as an invention.

Page 13

The recitation of an additional abutment in claim 49 for positioning a *security object* to be validated is a mere matter of design choice, which is not patentable because it only involves routine skill in the art.

- 7.9 Specifically regarding claim 49, Haslop's receiver (=document holder) comprises a drum, as shown in numerals 3 (or 2) in Fig.1, as already recited above.
- 8. Claims 54, 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haslop et al. in view of Markantes et al., Baltes et al., and Stein, as applied to claim 54 above, and further in view of Cottingham et al. (USPAT #4,029,418).

Haslop et al. as modified by Markantes et al., Baltes et al. and Stein show all the limitations of claims 54, 56 and 57, as previously applied to claim 53, except for a few additional limitations that are to be individually addressed in the following, all being rendered obvious by Cottingham et al.

8.1 Regarding claims 54 and 57, the recitation of a glow filament lamp is a pure matter of design choice that is entirely within skill in the art, but anyway, also disclosed by Cottingham in light source 33 in Fig.2, which is a glow filament lamp, as recited in Col.3/II.31-38.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a glow filament lamp for illuminating the test object, since a glow filament lamp has a significant part of its radiation in the visible light range as

Art Unit: 2881

taught by Cottingham et al., in order to have a wide flexibility of viewing scattering characteristics of different wavelengths, including characteristic fluorescence of a security mark, thus improving the security verification or validation method.

8.2 Regarding claim 56, the recitation of a light source having a significant proportion of its radiation in the visible light range is a pure matter of design choice that is entirely within skill in the art, and furthermore, also covered by Cottingham's light source 33 in Fig.2, which is a glow filament lamp, as recited in Col.3/II.31-38.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a light source having a significant part of its radiation in the visible light range as taught by Cottingham et al., in order to have a wide flexibility of viewing scattering characteristics of different wavelengths that will improve the security verification or validation method.

9. Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haslop et al. in view of Markantes et al., Baltes et al., Stein, and Chapman et al., as applied to claim 41 above, and further in view of Bercovitz (USPAT #5,034,616).

Haslop et al. as modified by Markantes et al., Baltes et al., Stein, and Chapman et al. show all the limitations of claims 42-44, as previously applied to the parent claim 41, except for additional recitations that are all rendered obvious by Bercovitz et al., to be addressed individually as follows:

Art Unit: 2881

9.1 Regarding claim 42, Bercovitz's collecting lens 9 shown in Fig.1 is a cylindrical

lens, as recited in Col.2/II.34-36.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use a cylindrical collecting lens as taught by Bercovitz, since

such a lens would better match the string- or strip-like geometry of security marks, e.g.,

the security thread in a bank note.

9.2 Regarding claim 43, the limitation of a collecting lens configured as a semi

cylinder is already encompassed in the rejection of claim 42 above, whereas -- insofar

as the Examiner can ascertain beyond the above 35 U.S.C. § 112 rejection --, the

limitation that the measuring window is located at a small distance from the flat side of

the semi cylinder lens is self-obvious in Bercovitz's Fig.1.

9.3 The limitation of claim 44 that the light guide is embedded in the semi cylinder is

disclosed by Bercovitz in light guide 4 being "embedded" in the semi cylinder lens 9 (or

vice versa), as is self-obvious in Fig.1.

Response to Applicant's Arguments

10. Applicant's arguments filed 10/06/2003 along with the RCE have been fully

considered, but they are not persuasive. The following is Examiner's response to

Applicant's arguments.

Page 16

Art Unit: 2881

▶ Regarding the limitation of permitting direct visualization by the eye of an observer,

Page 17

all previous three prior arts inherently allow such a viewing method, which can be

achieved by simply eliminating the light guide in Haslop's and the optical lens system in

Baltes's and Stein's. Eliminating an undesired optical system is not an invention, nor

does it need any skill in the art. Such elimination is always possible and also well

known to one of ordinary skill in the art, because viewing with naked eye is more

primitive than viewing through light guide or optical lens system. Therefore, in the event

the sophistication of a light guide or lens system is not required or undesired, it may just

be discarded. However, to make a thorough rejection based on prior arts, a new prior

art, Markantes et al., has been added.

- ▶ Applicant's argument that Baltes et al. does not capture the plurality of light beams
- "at different angles" is not justified, because Applicant is wrongly referring to Baltes's

embodiment shown in Fig.3, whereas the Office Action unambiguously and repeatedly

refers to the embodiment shown in Fig.7, in which the viewing angles θ and θ' are

different angles relative to the surface normal. Since Applicant does not recite how the

angles are measured, the Examiner's choice of the surface normal as a reference for

angle definition is justified. However, in anticipation of Applicant's amendment of the

claims, different viewing angles relative to the feed light is also shown by Baltes et al. in

Fig.12, in which the angle(s) θ and θ 's are **different** and also can be varied by $\Delta\theta$, as

recited in Col.8/II.34-42.

► Contrary to Applicant's argument, Baltes's angle θ' of viewing direction 11 shown in

Fig.7 is on the same side with the light feed direction 7. Obviously, Applicant does not

Art Unit: 2881

follow the rejections as recited in the previous Office Actions, which exclusively refer to

Page 18

the embodiment of Fig.7.

The rest of Applicant arguments, including the argument against Stein's, is moot,

because of the new prior art Markantes et al. introduced in this Office Action.

Communications

11. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bernard E Souw whose telephone number is 703 305

0149. The examiner can normally be reached on Monday thru Friday, 9:00 am to 5:00

pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John R Lee can be reached on 703 308 4116. The fax phone numbers for

the organization where this application or proceeding is assigned are 703 872 9318 for

regular communications and 703 872 9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703 308

0956.

Bes

November 22, 2003